Distr.
LIMITED

PPD.148
15 December 1989

ENGLISH
ORIGINAL: FRENCH *

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

HUMAN RESOURCE DEVELOPMENT:

ANALYSIS OF 225 TECHNICAL CO-OPERATION PROJECTS WITH REFERENCE TO STRENGTHENING OF NATIONAL INDUSTRIAL TRAINING AND DEVELOPMENT AND TRANSFER OF TECHNOLOGY CAPABILITIES **

Working document
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* This document contains excerpts from PPD.147

** The views expressed in this document are those of the author and do not necessarily reflect those of the UNIDO Secretariat.
This document has not been edited.

V.89-62420

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SUMMARY

This study analyses UNIDO's technical co-operation in human resource development and development and transfer of technology, which are two of the main planks of UNIDO's Medium-Term Plan, 1990-1995 (GC.3/17, paragraphs 24-34 in particular). The link between them is clearly defined in that document:

> "The primary objective of the human resource development programme of UNIDO is to assist developing countries in building up coherent and sustainable systems for upgrading local technological skills and managerial and entrepreneurial capabilities and integrating them into the industrial development process, in accordance with the national development strategies and priority plans of those countries" (para. 26).
>
> "In general, emphasis will be on linking human resource development and the development and transfer of technology" (para. 27).

Under the heading "Development and transfer of technology", the importance of the human resource in the development of national technological capability is also stressed several times, particularly in paragraphs 31, 33 and 34.

Reflecting the activities of UNIDO described in paragraph 27 of the Medium-Term Plan, annexes 1 and 2 (pp. i-xvii) illustrate the breakdown by technologies of the industrial training programmes supplied by UNIDO. Annex 1 classifies the projects according to industrial sector and shows that 47.2 per cent of the projects refer to no specific industrial sector, but relate to areas common to all sectors. Annex 2 establishes the number of projects and persons trained by region and industrial subsector (ISIC codes) and shows that it is difficult a priori to distinguish the subsectors on which assistance is focused.

In order to analyse the different forms of UNIDO training assistance and their possible impact on strengthening of national training and technology development capabilities, 225 projects received between 1 January 1988 and 1 September 1989 by the Project Appraisal Section have been classified and examined on the basis of their primary functions (this concept is defined in the Guidelines for Project Design of UNDP and UNIDO):

- Fellowships and study tours;
- Institution building;
- Group/direct training;
- Workshops/seminars.

A. **FELLOWSHIPS AND STUDY TOURS** (p. 6)

These two forms of assistance are demand-oriented and are, consequently, among those best suited to solving technical problems facing enterprises. **Fellowships** are granted on an individual basis, generally for a period of several months, and provide training for persons who wish to enhance their skill level in a specific field by following training abroad. **Study tours** are often collective, lasting a maximum of one month, and provide persons with a high level of responsibility within institutions, enterprises or governments with information on a specific subject to enable them to solve a given problem.

In spite of a very high potential level of impact, these projects are generally formulated so vaguely that there is a risk that the desired training and the tasks which the participant must be capable of accomplishing on his return will not match up with the learning experience provided. Countries should be helped to define their requirements and should be given better information on existing training and its content. Furthermore, training is more often than not given in Western institutions, while there may be training of a similar level in developing countries (this would strengthen South-South co-operation) and in-plant training is too rare. Finally, the system of appraisal is inappropriate and there is virtually no follow-up. There is no feedback from the training institutions on the programmes carried out and no final test of knowledge acquired. No questionnaire is subsequently sent out to ascertain the real impact of the programmes (pp. 14-18).

B. INSTITUTION BUILDING (p. 19)

This is designed to establish or strengthen training institutions or to train the personnel of other institutions, pursuant to paragraph 26 of the UNIDO Medium-Term Plan mentioned above. There are certain recurring problems in this respect that must be remedied: staff who do not have adequate skills to use complicated equipment, uncertain management and absence of co-ordination and co-operation with enterprises in drawing up training or research and development programmes. It is thus advisable to allow the institutions to design their activities better in the light of industry's requirements, so as to facilitate mastery of the industrialization process.

Twenty-five institution-building projects include a training component. Of these, eight envisage the establishment or strengthening of a training institution and the remaining 17 envisage the training of their personnel, primarily by means of study tours and individual training courses.

C. GROUP/DIRECT TRAINING (p. 28)

The direct or group training programmes are desiged to expand and update participants' theoretical and practical occupational skills in a specific given field. The following figures, combined with an examination of the projects, generate a number of questions.

	Interregional projects	Regional projects	National projects
Distribution of projects	45.1%	33.6%	21.3%
Distribution of amount	43.8%	33.6%	22.6%
Distribution of persons trained	38.1%	35.0%	26.9%
Average number of persons trained per project	16	20	24
Average cost per person ($US)	6 715	5 600	4 925

1. Why are only 21.3 per cent of the projects national, whereas these are best able to take account of the socio-economic situation of a country in order to facilitate mastery of specific technologies? Paragraph 26 of the UNIDO Medium-Term Plan stresses the importance of establishing or strengthening national capabilities and systems for human resource development. A priori the most effective people are also the least expensive, both overall and per person, and they on the average train the largest number of people.

2. Why do only 13.9 per cent of projects combine a group training programme with assistance to a training institution in a developing country? If one strengthens these institutions, then one helps to bring training supply in line with demand (p. 36), in accordance with paragraph 26 of the Medium-Term Plan.

3. Can programmes really be "tailor-made" when 88.7 per cent of them are regional or interregional? Such supply-oriented assistance cannot take account of all the socio-economic features and the priorities of each country, whereas interactiveness between the donor and the potential beneficiary ought to be the rule in programme design. Should UNIDO not play a greater part at that stage? The Organization too often confines itself to acting as the intermediary between the two above-mentioned parties, without utilizing its information, expertise or technical assistance capabilities (p. 40).

4. Would it not be advisable to strengthen the participant selection criteria? The number of countries invited is too large in the case of regional and interregional projects and the participant profile is too ill-defined for there not to be a risk of heterogeneity. The definition of a clearer profile would necessitate clarifying the objectives of the project, focusing the teaching on more specific aspects and thereby increasing the programme's chances of success (p. 41).

5. Can the training received be applied in practice? The participants are more often than not trained in developed countries and become familiar with the most up-to-date techniques. Such training is sometimes inappropriate to the actual situation in their countries or useless if not combined with technology transfer. Furthermore, training one or two persons per country in a technique is only meaningful if the person involved can train others and there is thus a multiplier effect or if the person's hierarchical position in the enterprise or institution is such that he or she may influence choices of technology (p. 43). Would it not also be possible to envisage the training of complete teams by means of programmes in which each individual would be trained in a particular task and in which his or her role in the production process and relations with others would be specifically defined?

6. Is the teaching effectively utilized and with what degree of success? Although the evaluation reports (PER/GT) are compulsorily prepared, there is virtually no organized follow-up to assess the changes introduced in each participant's workplace or the need to establish supplementary programmes or to convert existing ones (p. 44).

D. **WORKSHOPS AND SEMINARS** (p. 47)

The aim here is to bring together for a few days senior decision-makers in the public and private sectors capable of influencing the development of their country and brief them on a specific subject. These meetings normally generate recommendations or proposals for action.

	Interregional projects	Regional projects	National projects
Distribution of projects	54.9%	27.5%	17.6%
Distribution of amount	60.7%	29.6%	9.76%
Distribution of persons trained	50.9%	28.0%	21.1%

Once again regional and interregional projects predominate, but their nature and their purpose make this more understandable since it is not strictly speaking a matter of training in a particular technique. Nevertheless, they do pose a number of problems that have already been referred to: heterogeneity of participants, involvement of UNIDO in their design, difficulty of taking account of the diverse socio-economic features of the countries invited, real impact on development, etc.

E. CONCLUSION (p. 53)

If the objective of UNIDO's industrial training is to enable developing countries to master specific technologies, particular attention must be given to forms of assistance which can have the greatest impact in this area, namely, in the short term, fellowships and study tours and national direct or group training projects and, in the medium and long term, the establishment and strengthening of training institutions contributing to national industrial development. However, the assistance must be selective and integrated. There are 47.2 per cent of the projects that do not relate to any particular industrial sector (annex 1, p. i) and it is a priori difficult to distinguish the subsectors on which assistance is focused (annex 2, pp. ii-xvii). It would be necessary to make sure that the training programmes set up by UNIDO (the techniques and subsectors involved) and the subsectoral priorities of the developing countries for which they are intended coincide. In other words, emphasis should be placed on "tailor-made" programmes, rather than "ready-made" programmes, and these should be defined in the light of the Medium-Term Plan, 1990-1995, which highlights human resource development and development and transfer of technology, as well as the link between these two forms of assistance, as a UNIDO priority.

1. **TABLE ANN/I: BREAKDOWN OF PROJECTS BY INDUSTRIAL SECTOR FOR EACH PRIMARY FUNCTION**

*FELLOWSHIPS		
- Agro-food industries	3	
- Chemical industries	3	
- Metallurgical industries	2	
- Durable goods industries	3	
- Others (management, maintenance, industrial planning, preparation of investment projects, etc.)	9	
*STUDY TOURS		
- Agro-food industries	1	
- Chemical industries	1	
- Metallurgical industries	1	
- Durable goods industries	0	
- Others	4	
*GROUP/DIRECT TRAINING		
- Agro-food industries	9	
- Chemical industries	12	
- Metallurgical industries	9	
- Durable goods industries	31	
- Others	61	
*WORKSHOPS/SEMINARS		
- Agro-food industries	8	
- Chemical industries	7	
- Metallurgical industries	2	
- Durable goods industries	10	
- Others	24	
*INSTITUTION BUILDING		
- Agro-food industries	4	
- Chemical industries	8	
- Metallurgical industries	0	
- Durable goods industries	7	
- Others	10	
*COMBINED		
- Agro-food industries	25	(10.9%)
- Chemical industries	31	(13.5%)
- Metallurgical industries	14	(6.1%)
- Durable goods industries	51	(22.3%)
- Others	108	(47.2%)

2. TABLE ANN/II: NUMBER OF PROJECTS AND PERSONS TRAINED PER SUBSECTOR AND REGION

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
			NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED	NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED	NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED
11		Agriculture and hunting						
111	1110	Agricultural and livestock production	1	15	1	20		
112	1120	Agricultural services			2	41		
23	230	Metal ore mining						
	2301	Iron ore mining						
	2302	Non-ferrous ore mining			1	25		
31		Manufacture of food, beverages and tobacco						
311-312		Food manufacturing						
	3111	Slaughtering, preparing and preserving meat			1	3	2	35
	3112	Manufacture of dairy products					1	6
	3113	Canning and preserving fruits and vegetables						
	3114	Canning, preserving and processing of fish, crustaces and similar foods						
	3115	Manufacture of vegetable and animal oils and fats						
	3116	Grain mill products			1	7	1	1

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
	3117	Manufacture of bakery products						
	3118	Sugar factories and refineries	1	10			3	34
	3119	Manufacture of cacao, chocolate and sugar confectionery	1	10				
	3121	Manufacture of food products n.e.c.						
	3122	Manufacture of prepared animal food						
313		Beverage industries						
	3131	Distilling, rectifying and blending spirits						
	3132	Wine industries						
	3133	Malt liquors and malt					1	32
	3134	Soft drinks and carbonated waters industries						
314	3140	Tobacco manufacture						
32		Textile, wearing apparel and leather industries						
321		Manufacture of textiles						
	3211	Spinning, weaving and finishing textiles			1	12		
	3212	Manufacture of made-up textile goods except wearing apparel						
	3213	Knitting mills						
	3214	Manufacture of carpets and rugs						
	3215	Cordage, rope and twine industries					1	32
	3219	Manufacture of textiles n.e.c.					3	36
322	3220	Manufacture of wearing apparel, except footwear						
323		Manufacture of leather and products of leather, leather substitute and fur, except footwear and wearing apparel						

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
	3231	Tanneries and leather finishing					2	34
	3232	Fur dressing and dyeing industries						
	3233	Manufacture of products of leather and leather substitutes, except footwear and wearing apparel						
324	3240	Manufacture of footwear, exept vulcanized or moulded rubber or plastic footwear						
33		Manufacture of wood and wood products, including furniture						
331		Manufacture of wood and wood and corn products, except furniture						
	3311	Sawmills, planing and other wood mills					1	25
	3312	Manufacture of wooden and cane containers and small cane ware						
	3319	Manufacture of wood and cork products n.e.c.					1	30
332	3320	Manufacture of furniture and fixtures, except primarily of metal						
34		Manufacture of paper and paper products; printing and publishing						
341		Manufacture of paper and paper products						
	3411	Manufacture of pulp, paper and paperboard			2	8		
	3412	Manufacture of containers and boxes of paper and paperboard						
	3419	Manufacture of pulp, paper and paperboard articles n.e.c.						
342	3420	Printing, publishing and allied industries						

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
35		Manufacture of chemicals and of chemical, petroleum, coal, rubber and plastic products						
351		Manufacture of industrial chemicals						
	3511	Manufacture of basic industrial chemicals except fertilizers						
	3512	Manufacture of fertilizers and pesticides			2	271	1	32
	3513	Manufacture of synthetic resins, plastic materials and man-made fibres except glass			1	1		
352		Manufacture of other chemical products						
	3521	Manufacture of paints, varnishes and lacquers			1	15		
	3522	Manufacture of drugs and medicines					1	2
	3523	Manufacture of soap and cleaning preparations, perfumes, cosmetics and other toilet preparations						
	3529	Manufacture of chemical products n.e.c.					1	-
353	3530	Petroleum refineries	1	20				
354	3540	Manufacture of miscellaneous products of petroleum and coal						
355		Manufacture of rubber products						
	3551	Tyre and tube industries						
	3559	Manufacture of rubber products n.e.c.						
356	3560	Manufacture of plastic products n.e.c.			2	331		

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
36		Manufacture of non-metallic mineral products, except products of petroleum and coal						
361	3610	Manufacture of pottery, china and earthenware						
362	3620	Manufacture of glass and glass products						
369		Manufacture of other non-metallic mineral products						
	3691	Manufacture of structural clay products						
	3692	Manufacture of cement, lime and plaster						
	3699	Manufacture of non-metallic mineral products n.e.c.						
37		Basic metal industries						
371	3710	Iron and steel basic industries		1		3		35
372	3720	Non-ferrous metal basic industries		2		32		
38		Manufacture of fabricated metal products, machinery and equipment						
381		Manufacture of fabricated metal products, except machinery and equipment						
	3811	Manufacture of cutlery, hand tools and general hardware						
	3812	Manufacture of furniture and fixtures primarily of metal						

		LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
3813	Manufacture of structural metal products				1		3
3819	Manufacture of fabricated metal products except machinery and equipment n.e.c.						
382	Manufacture of machinery except electrical						
3821	Manufacture of engines and turbines						
3822	Manufacture of agricultural machinery and equipment		1	20	1		139
3823	Manufacture of metal and wood working machinery				1		139
3824	Manufacture of special industrial machinery and equipment except metal and wood working machinery						
3825	Manufacture of office, computing and accounting machinery						
3829	Machinery and equipment except electrical n.e.c.				1		10
383	Manufacture of electical machinery, apparatus, appliances and supplies						
3831	Manufacture of electrical industrial machinery and apparatus						
3832	Manufacture of radio, television and communication equipment and apparatus						
3833	Manufacture of electrical appliances and housewares						
3839	Manufacture of electrical apparatus and supplies n.e.c.				1		18
384	Manufacture of transport equipment						
3841	Ship building and repairing						
3842	Manufacture of railroad equipment				3		40

				LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
		3843	Manufacture of motor vehicles						
		3844	Manufacture of motorcycles and bicycles						
		3845	Manufacture of aircraft						
		3849	Manufacture of transport equipment n.e.c.						
	385		Manufacture of professional and scientific, and measuring and controlling equipment n.e.c., and of photographic and optical goods						
		3851	Manufacture of professional and scientific, and measuring and controlling equipment, n.e.c.			1	14	1	1
		3852	Manufacture of photographic and optical goods						
		3853	Manufactures of watches and clocks						
39	390		Other manufacturing industries						
		3901	Manufacture of jewellery and related articles						
		3902	Manufacture of musical instruments						
		3903	Manufacture of sporting and athletic goods						
		3909	Manufacturing industries n.e.c.			1	16		
41	410		Electricity, gas and steam						
		4101	Electric light and power					1	15
		4102	Gas manufacture and distribution						
		4103	Steam and hot water supply						
42	420	4200	Water works and supply						
50	500	5000	Construction	1	100	1	30	2	28

			LATIN AMERICA AND CARIBBEAN		ASIA AND PACIFIC		AFRICA	
71		Transport and storage						
	711	Land transport						
		7111 Railway transport						
		7112 Urban, suburban and inter-urban highway passenger transport						
		7113 Other passenger lend transport						
		7114 Freight transport by road						
		7115 Pipeline transport						
		7116 Supporting services to land transport						
	719	Services allied ti transport						
		7191 Services incidental to transport						
		7192 Storage and warehousing				1		18
83		Real estate and business services						
	832	Business services except machinery and equipment rentals and lessing						
		8321 Legal services						
		8322 Accounting, auditing and bookkeeping services						
		8323 Data processing and tabulating services		1	-	1		-
		8324 Enginneering, architectural and technical services		1	30	1		3
		8325 Advertising services						
		8329 Business services, except machinery and equipment rental and leasing, n.e.c.				1		24

				EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
				NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED	NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED	NUMBER OF PROJECTS	NUMBER OF PERSONS TRAINED
11			Agriculture and hunting						
	111	1110	Agricultural and livestock production					2	181
	112	1120	Agricultural services					1	170
22	220	2200	Crude petroleum and natural gas production					2	55
31			Manufacture of food, beverages and tobacco						
	311-312		Food manufacturing						
		3111	Slaughtering, preparing and preserving meat						
		3112	Manufacture of dairy products					1	22
		3113	Canning and preserving fruits and vegetables					2	27
		3114	Canning, preserving and processing of fish, crustaces and similar foods					2	33
		3115	Manufacture of vegetable and animal oils and fats					2	42
		3116	Grain mill products					2	37
		3117	Manufacture of bakery products						
		3118	Sugar factories and refineries	2	4			5	219
		3119	Manufacture of cacao, chocolate and sugar confectionery					1	22

			EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
	3121	Manufacture of food products n.e.c.					2	42
	3122	Manufacture of prepared animal food						
313		Beverage industries						
	3131	Distilling, rectifying and blending spirits						
	3132	Wine industries						
	3133	Malt liquors and malt					1	22
	3134	Soft drinks and carbonated waters industries			1	6		
314	3140	Tobacco manufacture						
32		Textile, wearing apparel and leather industries						
321		Manufacture of textiles						
	3211	Spinning, weaving and finishing textiles						
	3212	Manufacture of made-up textile goods except wearing apparel					1	13
	3213	Knitting mills						
	3214	Manufacture of carpets and rugs						
	3215	Cordage, rope and twine industries						
	3219	Manufacture of textiles n.e.c.					1	13
322	3220	Manufacture of wearing apparel, except footwear						
323		Manufacture of leather and products of leather, leather substitute and fur, except footwear and wearing apparel						
	3231	Tanneries and leather finishing	1	30			1	22
	3232	Fur dressing and dyeing industries						

			EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
	3233	Manufacture of products of leather and leather substitutes, except footwear and wearing apparel	1	30				
324	3240	Manufacture of footwear, exept vulcanized or moulded rubber or plastic footwear	1	30	1	50		
33		Manufacture of wood and wood products, including furniture						
331		Manufacture of wood and wood and corn products, except furniture						
	3311	Sawmills, planing and other wood mills					2	50
	3312	Manufacture of wooden and cane containers and small cane ware						
	3319	Manufacture of wood and cork products n.e.c.					2	60
332	3320	Manufacture of furniture and fixtures, except primarily of metal						
34		Manufacture of paper and paper products; printing and publishing						
341		Manufacture of paper and paper products						
	3411	Manufacture of pulp, paper and paperboard					2	40
	3412	Manufacture of containers and boxes of paper and paperboard						
	3419	Manufacture of pulp, paper and paperboard articles n.e.c.						
342	3420	Printing, publishing and allied industries					2	40

			EUROPE AND MEDITERRANEAN		ARAB COUNTRIES	INTERREGIONAL	
35		Manufacture of chemicals and of chemical, petroleum, coal, rubber and plastic products					
	351	Manufacture of industrial chemicals					
		3511 Manufacture of basic industrial chemicals except fertilizers				1	8
		3512 Manufacture of fertilizers and pesticides				3	61
		3513 Manufacture of synthetic resins, plastic materials and man-made fibres except glass	1	1		1	10
	352	Manufacture of other chemical products					
		3521 Manufacture of paints, varnishes and lacquers					
		3522 Manufacture of drugs and medicines				6	94
		3523 Manufacture of scap and cleaning preparations, perfumes, cosmetics and other toilet preparations					
		3529 Manufacture of chemical products n.e.c.	1	4		4	50
	353	3530 Petroleum refineries				1	20
	354	3540 Manufacture of miscellaneous products of petroleum and coal					
	355	Manufacture of rubber products					
		3551 Tyre and tube industries				1	15
		3559 Manufacture of rubber products n.e.c.				1	15
	356	3560 Manufacture of plastic products n.e.c.				2	15

			EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
36		Manufacture of non-metallic mineral products, except products of petroleum and coal						
	361 3610	Manufacture of pottery, china and earthenware						
	362 3620	Manufacture of glass and glass products					1	15
	369	Manufacture of other non-metallic mineral products						
	3691	Manufacture of structural clay products			1	20		
	3692	Manufacture of cement, lime and plaster			2	60	4	47
	3699	Manufacture of non-metallic mineral products n.e.c.			1	20	2	45
37		Basic metal industries						
	371 3710	Iron and steel basic industries	1	2			7	87
	372 3720	Non-ferrous metal basic industries					2	23
38		Manufacture of fabricated metal products, machinery and equipment						
	381	Manufacture of fabricated metal products, except machinery and equipment						
	3811	Manufacture of cutlery, hand tools and general hardware						
	3812	Manufacture of furniture and fixtures primarily of metal						
	3813	Manufacture of structural metal products						
	3819	Manufacture of fabricated metal products except machinery and equipment n.e.c.					2	24

		EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
382	Manufacture of machinery except electrical						
3821	Manufacture of engines and turbines					2	45
3822	Manufacture of agricultural machinery and equipment	1	1	1	-	3	65
3823	Manufacture of metal and wood working machinery					1	15
3824	Manufacture of special industrial machinery and equipment except metal and wood working machinery					1	15
3825	Manufacture of office, computing and accounting machinery					1	10
3829	Machinery and equipment except electrical n.e.c.					2	34
383	Manufacture of electical machinery, apparatus, appliances and supplies						
3831	Manufacture of electrical industrial machinery and apparatus	2	3				
3832	Manufacture of radio, television and communication equipment and apparatus						
3833	Manufacture of electrical appliances and housewares						
3839	Manufacture of electrical apparatus and supplies n.e.c.						
384	Manufacture of transport equipment						
3841	Ship building and repairing						
3842	Manufacture of railroad equipment			1	16	1	20
3843	Manufacture of motor vehicles						
3844	Manufacture of motorcycles and bicycles						
3845	Manufacture of aircraft						
3849	Manufacture of transport equipment n.e.c.			1	30	1	10

				EUROPE AND MEDITERRANEAN	APAE COUNTRIES		INTERREGIONAL	
	385		Manufacture of professional and scientific, and measuring and controlling equipment n.e.c., and of photographic and optical goods					
		3851	Manufacture of professional and scientific, and measuring and controlling equipment, n.e.c.			1		20
		3852	Manufacture of photographic and optical goods					
		3853	Manufactures of watches and clocks					
39	390		Other manufacturing industries					
		3901	Manufacture of jewellery and related articles					
		3902	Manufacture of musical instruments					
		3903	Manufacture of sporting and athletic goods					
		3909	Manufacturing industries n.e.c.			3		25
41	410		Electricity, gas and steam					
		4101	Electric light and power			1		15
		4102	Gas manufacture and distribution					
		4103	Steam and hot water supply					
42	420	4200	Water works and supply					
50	500	5000	Construction		1	20	1	10

			EUROPE AND MEDITERRANEAN		ARAB COUNTRIES		INTERREGIONAL	
71		Transport and storage						
	711	Land transport						
		7111 Railway transport			1	30	1	20
		7112 Urban, suburban and inter-urban highway passenger transport						
		7113 Other passenger lend transport						
		7114 Freight transport by road						
		7115 Pipeline transport						
		7116 Supporting services to land transport						
	719	Services allied ti transport						
		7191 Services incidental to transport					1	20
		7192 Storage and warehousing						
83		Real estate and business services						
	832	Business services except machinery and equipment rentals and lessing						
		8321 Legal services						
		8322 Accounting, auditing and bookkeeping services						
		8323 Data processing and tabulating services						
		8324 Enginneering, architectural and technical services						
		8325 Advertising services						
		8329 Business services, except machinery and equipment rental and leasing, n.e.c.					1	15